

Appl. No. 10/639,072

Amtd. dated Mar. 16, 2005

Reply to Office Action of Dec. 16, 2004

Amendments to the Specification:

Please replace paragraph [0004] with the following amended paragraph:

[0004] In operation, the light from the light source 110 is repeatedly reflected inside the light guide plate 120 and is emitted from the emitting surface 122 to enter the light diffusing film 130, and after that, the prism film 140. In the end, the light provided is uniform and relatively collimated and can be used to illuminate a liquid crystal panel. However, the backlight system is quite complicated, difficult to assemble, and [[is]] expensive to manufacture.

Please replace paragraph [0006] with the following amended paragraph:

[0006] It is desirable to provide a backlight system and a light guide plate used therein which ~~overcomes~~ overcome the above problems.

Please replace paragraph [0009] with the following amended paragraph:

[0009] A backlight system of the present invention comprises a light guide plate, and a light source disposed at one side of the light guide plate.

Please replace paragraph [0010] with the following amended paragraph:

[0010] The light guide plate is made of a transparent material such as a synthetic resin or [[a]] glass. The light guide plate comprises an incident surface

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for receiving light from the light source, a bottom surface, and a light emitting surface for emitting the light. A plurality of pyramid-shaped prisms are disposed continuously on the light emitting surface. A plurality of diffusion dots are formed on the bottom surface by a screen-printing method.

Please replace paragraph [0012] with the following amended paragraph:

[0012] Other objects, advantages, and novel features of the present invention will become more apparent from the following detailed description when taken in conjunction with the accompanying drawings[[]], in which:

Please replace paragraph [0022] with the following amended paragraph:

[0022] The light guide plate 300 is rectangular in shape, and is made of a transparent material[[]] such as a synthetic resin or [[a]] glass. The light guide plate 300 comprises an incident surface 321 for receiving light from the light source 310, a bottom surface 323, and a light emitting surface 322 for emitting the light, ~~wherein the~~ The light emitting surface 322 has a contour in a shape of a plurality of prisms 350, each in a shape of a pyramid, disposed continuously on the

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light emitting surface 322 for converging the outgoing light to improve [[an]] illumination.

Please replace paragraph [0024] with the following amended paragraph:

[0024] The pyramid-shaped prisms 350 are formed edge-to-edge on the light emitting surface 322 to converge the outgoing light emitted from the light emitting surface 322 in a predetermined angular range. The prisms 350 are formed integrally with the light guide plate 400.

Please replace paragraph [0026] with the following amended paragraph:

[0026] In operation, the light emitted by the light source 310 propagates into the light guide plate 300 through the incident surface 321. Then, the light is ~~totally~~ total internal reflected by the bottom surface 323 and is uniformly scattered by the diffusion dots 324 to the light emitting surface 322. When the light is emitted from the light emitting surface 322, it is directed in a predetermined angular range by the pyramid-shaped prisms 350.

Please replace paragraph [0028] with the following amended paragraph:

[0028] The light guide plate 400 has a wedge shape and is made of a

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transparent material such as a synthetic resin or ~~[[a]]~~ glass. The light guide plate 400 comprises an incident surface 421 for receiving light from the light source 410, a bottom surface 423, and a light emitting surface 422 for emitting the light ~~outwards, wherein the~~ outward. The light emitting surface 422 has a contour in a shape of a plurality of prisms 450, each in a shape of a pyramid, disposed continuously on the light emitting surface 422 and formed integrally with the light guide plate 400. A plurality of diffusion dots 424 are formed on the bottom surface 423 by a screen-printing method. The diffusion dots 424 are distributed more densely on the bottom surface 423 as a distance away from the incident surface 421 increases, so they scatter the incident light from the incident surface 421 and uniformly transmit the light upwardly.

Please replace paragraph [0030] with the following amended paragraph:

[0030] In operation, the light from the light source 410 is introduced into the light guide plate 400 through the incident surface 421, and then is totally reflected by the bottom surface 423 and uniformly scattered by the diffusion dots 424 to the light emitting surface 422. The more dense distribution of the diffusion dots 424 away from the incident surface 421 helps to assure uniform emission through the light emitting surface 422.